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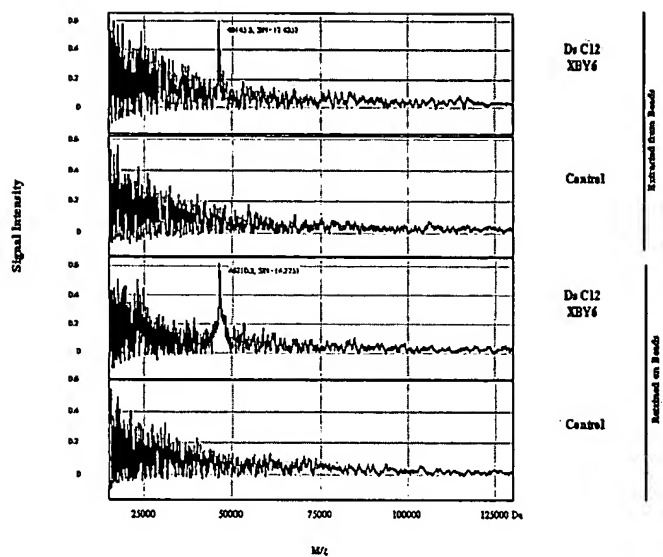


Figure 1

Split Synthesis

“One Bead One Sequence”

10^8 thioaptamer library

or “One Bead One Library”

$10^8 \times 10^6 = 10^{14}$
thioaptamer
Library of random
libraries

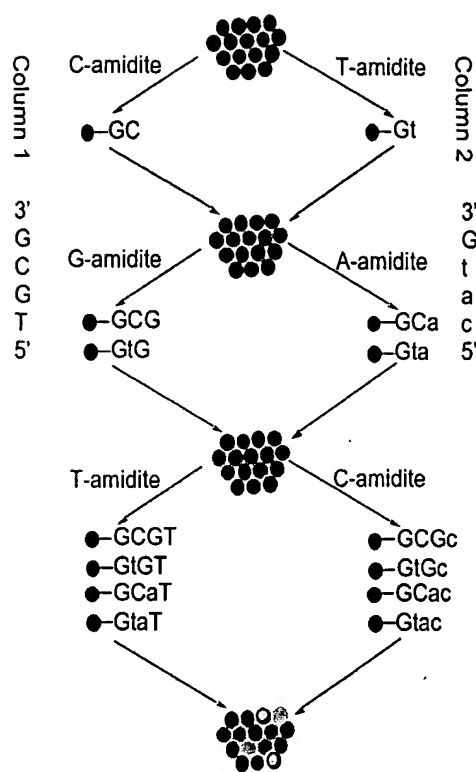


Figure 2

Antibody based assay screen - fluorogenic

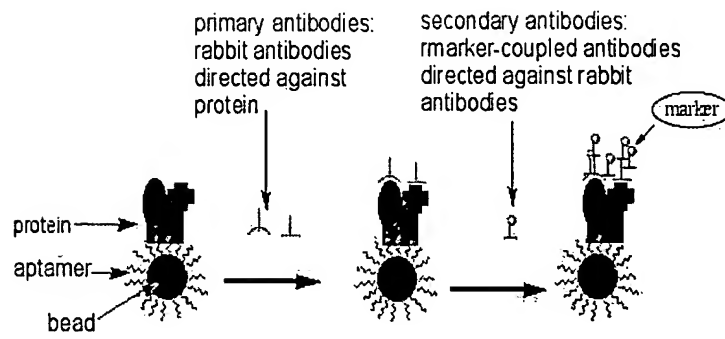


Figure 3

Dual Color Bead Labeling

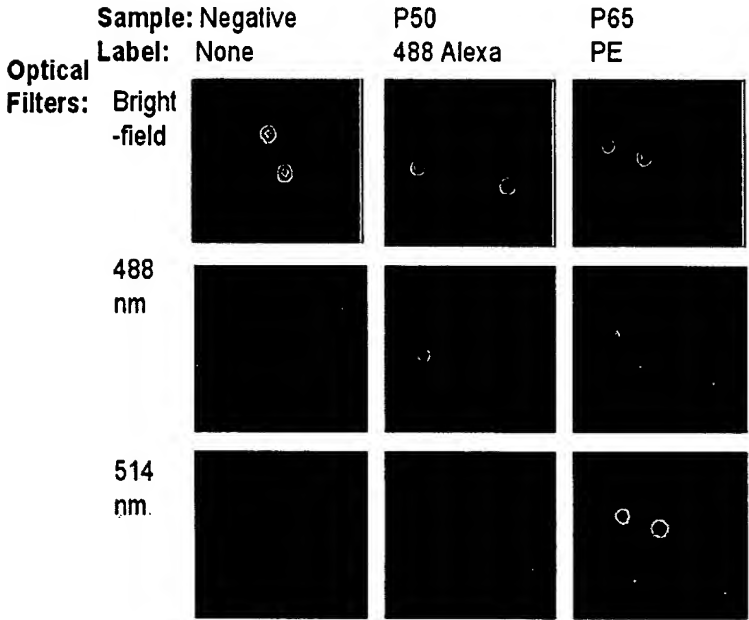


Figure 4

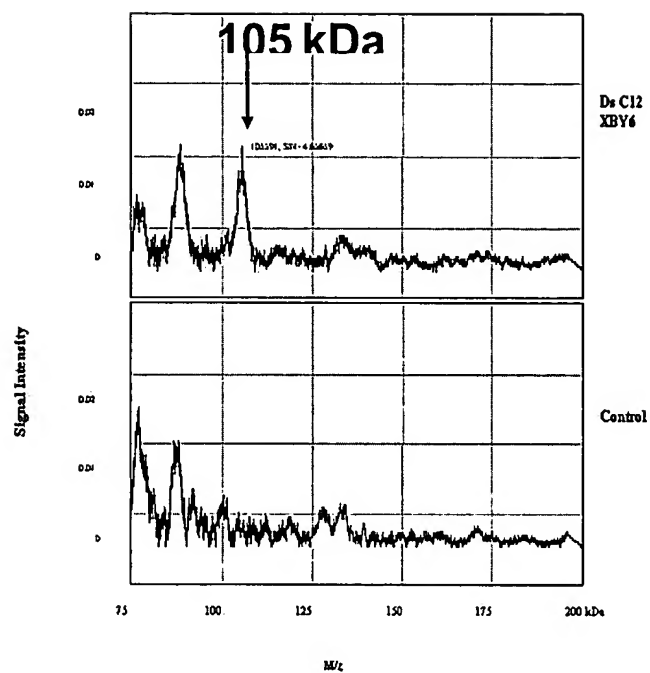


Figure 5

Sequences of individual beads of dithioate library selected for binding to

NF- κ B

Sequences from screening with
fluorescently labeled p50 protein

- ☐ 1 CGCCAGCCaAGGTGCTGTCAG
- ☐ 2 CGCCcAGTgGCTAGTgaACCCC
- ☐ 3 ATGTAGCCgaAGGTGgaACCCC
- ☐ 4 CGCCAGCCgaAGGTGgaACCCC

- ☐ A 1000310013301000330010
- ☐ C 3033103300100001003433
- ☐ G 0310031031033133010001
- ☐ T 0101000100010310101000

CGCCAGCCgaAGGTGgaACCCC

Sequences from immunofluorescence
assay

- ☐1 ATGTAGCCAaAGGTGgaACCCC
- ☐2 CGCCAGCCgaAGGTGCTGTCAG
- ☐3 CGCCcAGTgaAGGTGCTGTCAG
- ☐4 CGCCcAGTAGCTAGTCTGTCAG

- ☐A 1000220023301000110030
- ☐C 3033202200100003001411
- ☐G 0310022021033131030003
- ☐T 0101000200010310303000

CGCCAGCCgaAGGTGCTGTCAG
CAGTA

Figure 6

High-Throughput Identification of Proteins & Aptamers Using Bead-Based Library

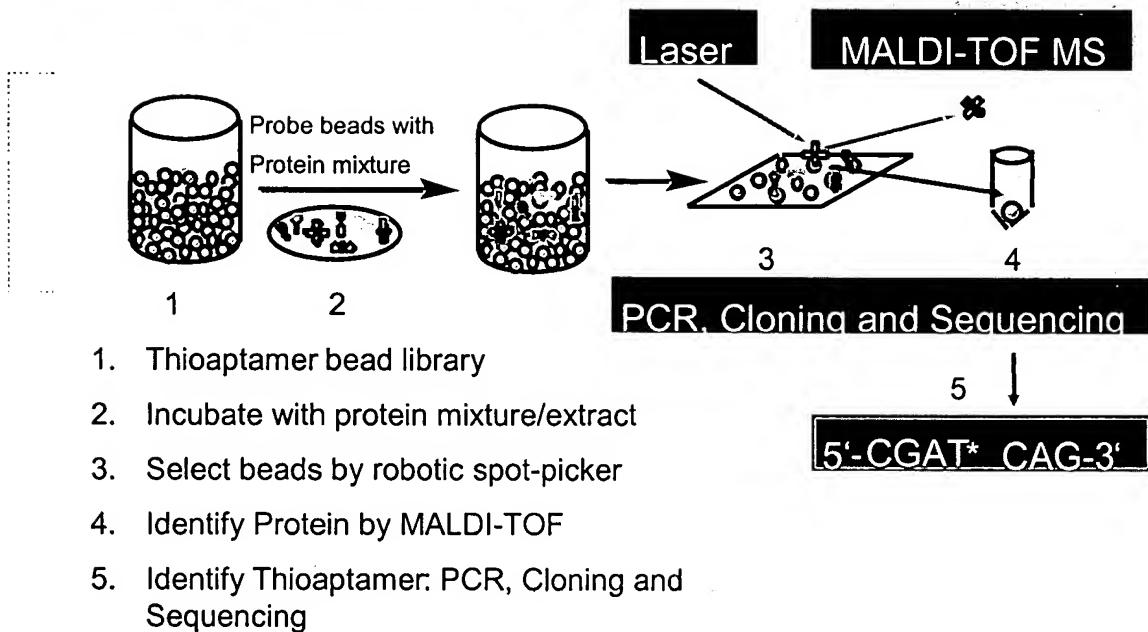


Figure 7



Figure 8

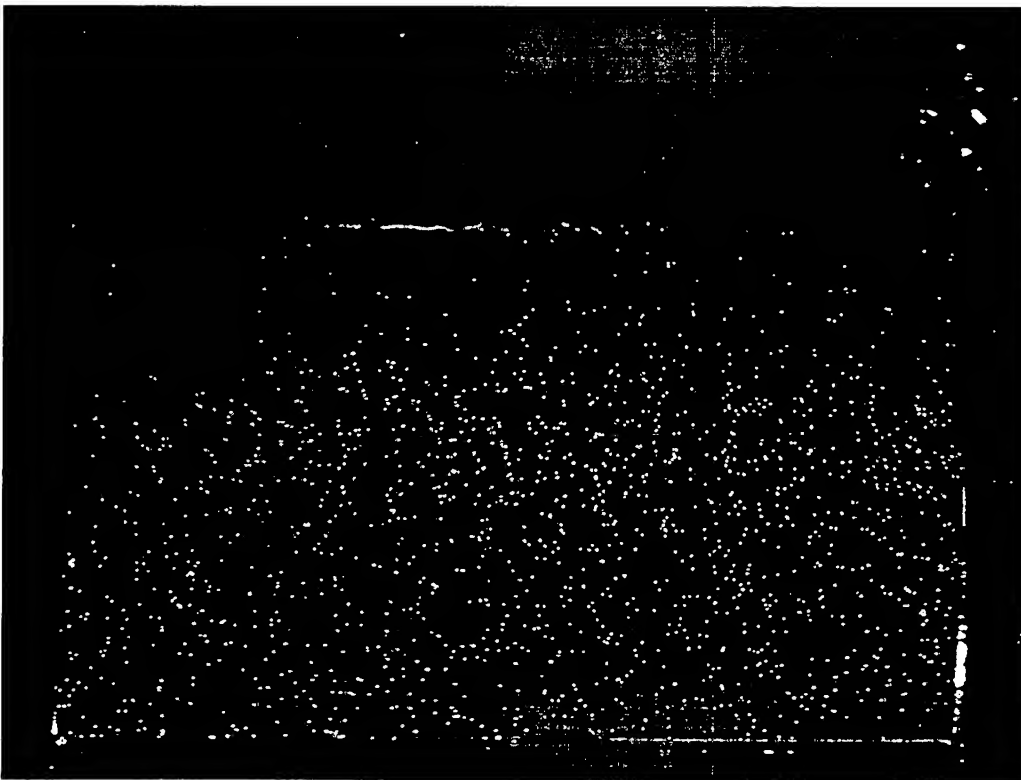


Figure 9

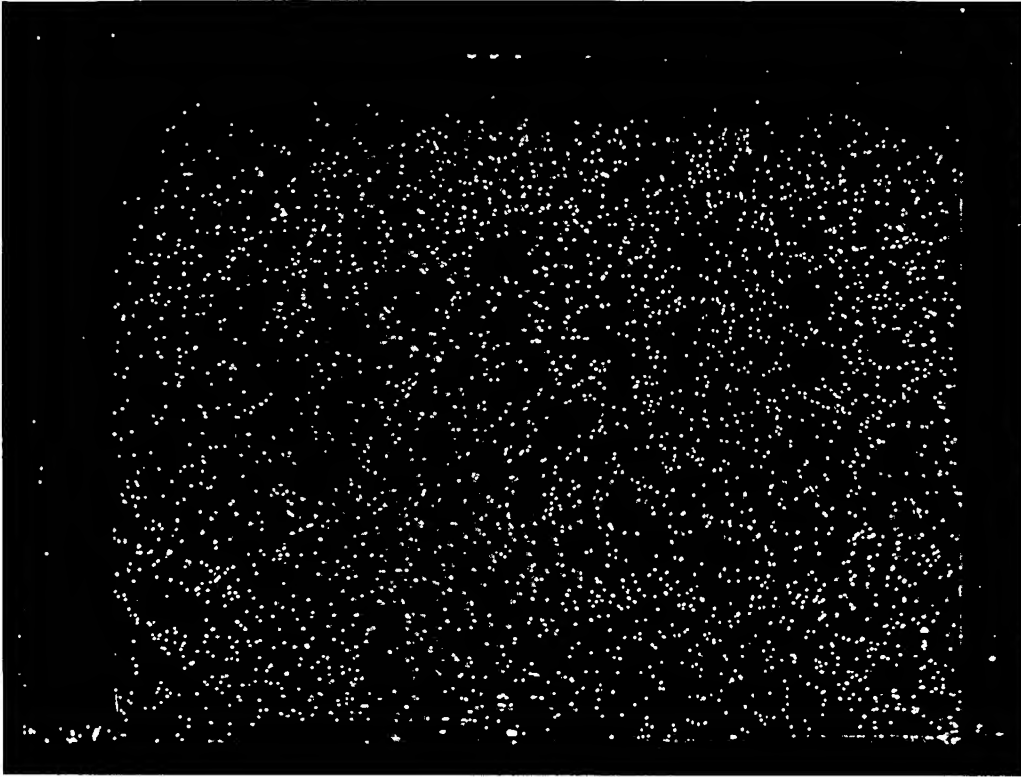


Figure 10

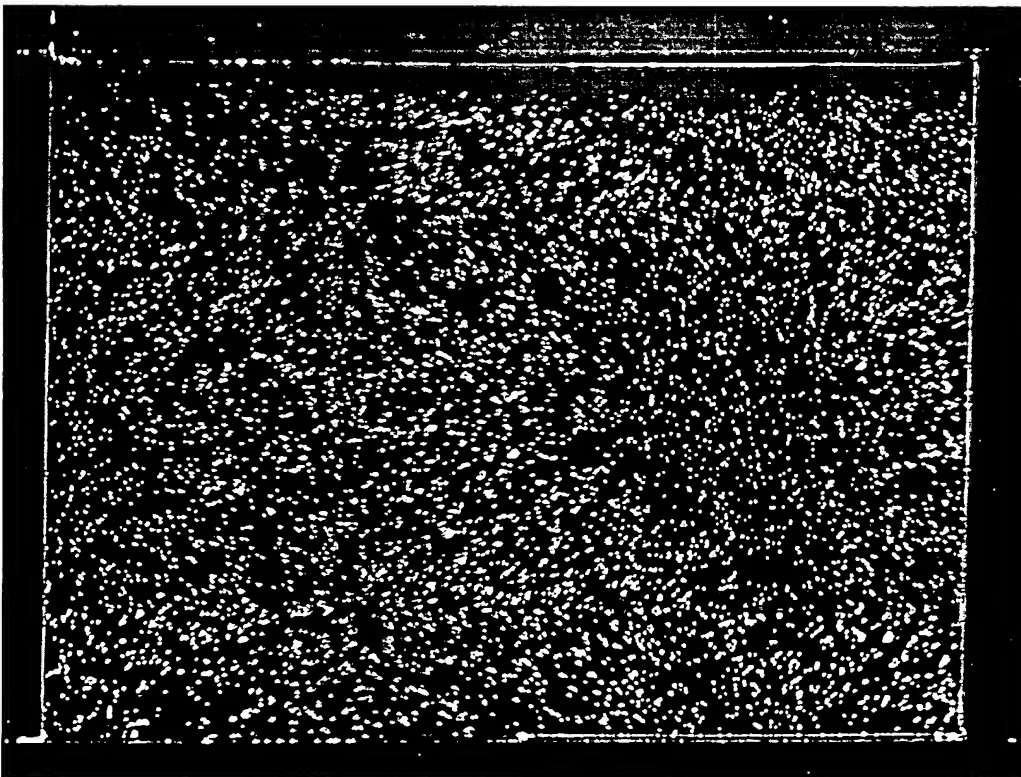


Figure 11